

Appl. No. 09/376,017
Amdt. dated March 2, 2005
Reply to Office action of February 18, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for notifying a computer of changes to a master source file set, comprising the steps of:
 - (a) identifying changes to files in the master source file set on a master computer;
 - (b) converting local host addresses of the files to uniform resource locators;
 - (c) storing the identified changes in a modification list comprising the uniform resource locators specifying changed files of the master source file set;
 - (d) transmitting the modification list to one or more computers, thereby notifying the one or more computers that the master source file set has changed; ~~and~~
 - (e) receiving a response from at least one of the one or more computers indicating that the identified changes are installed; and
 - (f) issuing an alert that a copying of the changes by an agent in at least one of the one or more computers has failed, to cause a traffic manager that redirects traffic to decrease requests made to a web server on the computer having the agent.
2. (Previously Presented) The method of claim 1 wherein the one or more computers comprises a web cache server.
3. (Previously Presented) The method of claim 1 wherein the identifying step comprises the steps of:
 - inspecting a current version of the master source file set; and
 - comparing the current master source file set to a previous version of the master source file set on the master computer.

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4. (Previously Presented) The method of claim 3 wherein the comparing step comprises comparing a file attribute of a file of the master source file set to a file attribute of a file of the previous version of the master source file set.

5. (Previously Presented) The method of claim 4 wherein the file attribute comprises at least one attribute chosen from the group consisting of file size, file permissions, file ownership, modification time, and a hash of the file.

6. (Previously Presented) The method of claim 1 wherein the identifying step comprises the steps of:

installing a device driver to perform file operations, and monitor changes to the master source file set; and

recording, by the device driver, changes to the master source file set.

7. (Previously Presented) The method of claim 1 wherein the identifying step comprises; receiving a manifest describing changes to the master source file set.

8. (Previously Presented) The method of claim 1, further comprising, before the identifying step, the step of calling a script of user configurable instructions by calling an operating system function.

9. (Previously Presented) The method of claim 1, further comprising, before the transmitting step, the step of calling a script of user configurable instructions by calling an operating system function.

10. (Previously Presented) The method of claim 1, further comprising, after the transmitting step, the step of calling a script of user configurable instructions by calling an operating system function.

11.(Cancelled)

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12. (Currently Amended) A method for replicating changes in a master source file set on a destination file system and for notifying one or more computers of the changes, comprising the steps of:

- (a) identifying changes in the master source file set on a master computer;
- (b) storing the changes in a first modification list;
- (c) transmitting the first modification list to an agent having access to the destination file system;
- (d) converting local host addresses of the files having the changes to uniform resource locators;
- (e) storing the uniform resource locators in a second modification list specifying a changed file of the master source file set;
- (f) transmitting the second modification list to the one or more computers, thereby notifying the one or more computers that the master source file set has changed; ~~and~~
- (g) receiving a response indicating that the identified changes are installed on at least one of the one or more computers; and
- (g) issuing an alert that a copying of the changes by an agent in at least one of the one or more computers has failed, to cause a traffic manager that redirects traffic to decrease requests made to a web server on the computer having the agent.

13. (Previously Presented) The method of claim 12 wherein the one or more computers comprises a web cache server.

14. (original) The method of claim 12 further comprising, before step (d), the step of converting the first modification list into the second modification list.

15. (Currently Amended) A method for replicating changes in a master source file set on a destination file system and for notifying one or more computers of the changes, comprising the steps of:

- (a) identifying changes to files in the master source file set on a master computer;

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- (b) converting local host addresses of the files to uniform resource locators;
- (c) storing the changes in a modification list comprising the uniform resource locators specifying a changed file of the master source file list;
- (d) transmitting the modification list to one or more agents having access to the destination file system;
- (e) transmitting the modification list to the one or more computers, thereby notifying the one or more computers the master source file set has changed; and
- (f) receiving a response indicating the identified changes are installed on at least one of the one or more computers; and
- (g) issuing an alert that a copying of the changes by an agent in at least one of the one or more computers has failed, to cause a traffic manager that redirects traffic to decrease requests made to a web server on the computer having the agent.

16. (Currently Amended) A web service system, comprising:

- a manager for managing the web service system;
- a host comprising a web server for receiving web page requests and an agent in communication with the manager and the web server;
- a web cache; and
- a content distributor in communication with the web cache, the host, and the manager, the content distributor converting local host addresses of changed file in a master source file list to uniform resource locators, providing notification of changes to a master source file set on a master computer to the host in a modification list comprising the uniform resource locators, and receiving a response indicating that the identified changes are installed, wherein:
 - either the content distributor or the agent issues an alert to the manager indicating that a copying of the changes by the agent has failed; and
 - the manager instructs the traffic manager to redirect traffic to decrease requests made to the web server on the host having the agent and the web server.

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17.(Previously Presented) The system of claim 16, further comprising a traffic manager in communication with the manager, the traffic manager automatically directing web page requests to the web server.

18. (Previously Presented) The system of claim 16, wherein the content distributor comprises:

- (a) an identification module for identifying changes in the master source file set on a master computer;
- (b) means for converting local host addresses of the files to uniform resource locators;
- (d) a modification list for storing identified changes to the master source file set;
- (c) a transmitter for transmitting the modification list to the agent, the agent having access to a destination file system; and
- (e) a receiver for receiving a response indicating that the identified changes are installed.

19.(Canceled)

20. (Currently Amended) A content distributor, comprising:

(a) an identification module for identifying changes in a master source file set on a master computer, the identifying module installing a pass-through device driver that monitors and passes data between an operating system of a computer having the master source file set and a storage device driver through which the operating system communicates with a storage device in which the master source file set is stored;

- (b) a modification list for storing the identified changes to the master source file set;
- (c) means for converting local host addresses of the changes to uniform resource locators;
- (d) a transmitter for transmitting the modification list of uniform resource locators to one or more agents having access to a destination file system;
- (e) a transmitter for transmitting a copy of a changed file of the master source file set to a web cache server; and

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(f) a receiver for receiving a response indicating that the web cache server received and installed the copy of the changed file of the master source file set.

21. (Previously Presented) The method of claim 4 wherein the file attribute is stored in a list of file attributes.

22. (Previously Presented) The method of claim 1, wherein a prefix of a source directory of the local host addresses corresponds to a particular prefix of possible URLs, and characters which are not allowed in URLs, such as spaces, are encoded according to a specified rule.

23. (Canceled):

24. (Currently Amended) The method of claim ~~23~~ 1, wherein, following the alert, the traffic manager directs requests away from the web server on the computer having the agent onto other servers.

25. (Previously Presented) The method of claim 24, wherein, following the alert, the traffic manager does not direct web page requests from another web server to the web server on the computer having the agent.

26. (Previously Presented) The method of claim 1, wherein step (d) is performed when a predetermined number of servers running in the one or more computers have indicate they are ready to accept updated content.

27. (Previously Presented) The method of claim 1, wherein step (d) is performed when a predetermined percentage of servers running in the one or more computers have indicate they are ready to accept updated content.

28. (Currently Amended) ~~The method of claim 6~~ A method for notifying a computer of changes to a master source file set, comprising the steps of:

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(a) identifying changes to files in the master source file set on a master computer, wherein the identifying step installs a device driver to perform file operations, and monitor changes to the master source file set, and the device driver records changes to the master source file set;

(b) converting local host addresses of the files to uniform resource locators;

(c) storing the identified changes in a modification list comprising the uniform resource locators specifying changed files of the master source file set;

(d) transmitting the modification list to one or more computers, thereby notifying the one or more computers that the master source file set has changed; and

(e) receiving a response from the one or more computers indicating that the identified changes are installed,

wherein the device driver is a pass-through device driver that monitors and passes data between an operating system of a computer having the master source file set and a storage device driver through which the operating system communicates with a storage device in which the master source file set is stored.

29. (Currently Amended): The system of claim ~~17~~ 16, wherein:

~~either the content distributor or the agent issues an alert to the manager indicating that a copying of the changes by the agent has failed;~~

~~the manager instructs the traffic manager to redirect traffic to decrease requests made to the web server on the host having the agent and the web server; and~~

the content distributor generates and transmits a catch-up update to the agent, to provide the notification of changes to the web server.

30. (Previously Presented) The system of claim 29, wherein, following the alert, the traffic manager directs requests away from the web server on the computer having the agent onto other servers.

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31. (Previously Presented) The system of claim 30, wherein, following the alert, the traffic manager does not direct web page requests from another web server to the web server on the computer having the agent.

32. (Previously Presented) The system of claim 16, wherein the content distributor provides the notification of changes when a predetermined number of servers running in one or more computers have indicate they are ready to accept updated content.

33. (Previously Presented) The system of claim 16, wherein the content distributor provides the notification of changes when a predetermined percentage of servers running in the one or more computers have indicate they are ready to accept updated content.

34. (Currently Amended) ~~The system of claim 16, further comprising~~ A web service system, comprising:

a manager for managing the web service system;

a host comprising a web server for receiving web page requests and an agent in communication with the manager and the web server;

a web cache; and

a content distributor in communication with the web cache, the host, and the manager, the content distributor converting local host addresses of changed file in a master source file list to uniform resource locators, providing notification of changes to a master source file set on a master computer to the host in a modification list comprising the uniform resource locators, and receiving a response indicating that the identified changes are installed; and

a pass-through device driver that monitors and passes data between an operating system of a computer having the master source file set and a storage device driver through which the operating system communicates with a storage device in which the master source file set is stored.